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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/775,179	02/01/2001	Toshihiko Hamamatsu	450100-02984	7284

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EXAMINER

RAO, ANAND SHASHIKANT

ART UNIT	PAPER NUMBER
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2613

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DATE MAILED: 11/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/775,179

Applicant(s)

HAMAMATSU ET AL.

Examiner

Andy S. Rao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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## **DETAILED ACTION**

### ***Specification***

1. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

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3. Claims 1-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Cheung et al., (hereinafter referred to as "Cheung").

Cheung discloses an image processing apparatus (Cheung: column 3, lines 58-67; column 4, lines 1-5) for detecting a noise area in an image data generated by decoding encoded data encoded by a frequency transform method and lossy compression method (Cheung: column 4, lines 35-45), the image processing apparatus comprising: motion detection means for detecting motion in an area having a least one pixel in said image (Cheung: column 5, lines 50-67); deviation means for detecting the deviation of the image motion in the area having at least one pixel (Cheung: column 4, lines 25-35; column 6, lines 25-35); and noise detection means for detecting the noise area in accordance with the detecting the noise area in accordance with the deviation of the image motion (Cheung: column 7, lines 8-62), as in claim 1.

Regarding claim 2, Cheung discloses that the deviation detecting means detects the deviation in accordance with the deviation of the norm of image motion (Cheung: column 9, lines 5-30), as in the claim.

Regarding claim 3, Cheung discloses that the deviation detecting means detects the deviation in accordance with the deviation of direction of image motion (Cheung: column 6, lines 30-67), as in the claim.

Regarding claim 4, Cheung discloses detecting a motion vector as motion (Cheung: column 6, lines 1-15), as in the claim.

Regarding claims 5-6, Cheung discloses converting the motion vector to a one-dimensional value (Cheung: column 6, lines 1-12), as in the claims.

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Regarding claim 7, Cheung discloses noise reduction means for reducing the amount of noise detected by said noise reduction means (Cheung: column 5, lines 30-40), as in the claim.

Regarding claim 8, Cheung discloses that the deviation detecting means detects the deviation in accordance with the deviation of the norm of image motion (Cheung: column 9, lines 5-30), as in the claim.

Regarding claim 9, Cheung discloses that the deviation detecting means detects the deviation in accordance with the deviation of direction of image motion (Cheung: column 6, lines 30-67), as in the claim.

Regarding claim 10, Cheung discloses detecting a motion vector as motion (Cheung: column 6, lines 1-15), as in the claim.

Regarding claims 11-12, Cheung discloses converting the motion vector to a one-dimensional value (Cheung: column 6, lines 1-12), as in the claims.

Cheung discloses an image processing method (Cheung: column 3, lines 58-67; column 4, lines 1-5; figure 2) for detecting a noise area in an image data generated by decoding encoded data encoded by a frequency transform method and lossy compression method (Cheung: column 4, lines 35-45), the image processing method comprising the steps of: detecting motion in an area having a least one pixel in said image (Cheung: column 5, lines 50-67); detecting the deviation of the image motion in the area having at least one pixel (Cheung: column 4, lines 25-35; column 6, lines 25-35); detecting the noise area in accordance with the detecting the noise area in accordance with the deviation of the image motion (Cheung: column 7, lines 8-62), as in claim 13.

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Regarding claim 14, Cheung discloses detecting the deviation in accordance with the deviation of the norm of image motion (Cheung: column 9, lines 5-30), as in the claim.

Regarding claim 15, Cheung discloses detecting the deviation in accordance with the deviation of direction of image motion (Cheung: column 6, lines 30-67), as in the claim.

Regarding claim 16, Cheung discloses detecting a motion vector as motion (Cheung: column 6, lines 1-15), as in the claim.

Regarding claims 17-18, Cheung discloses converting the motion vector to a one-dimensional value (Cheung: column 6, lines 1-12), as in the claims.

Regarding claim 19, Cheung discloses reducing the amount of noise detected by said noise reduction means (Cheung: column 5, lines 30-40), as in the claim.

Regarding claim 20, Cheung discloses detecting the deviation in accordance with the deviation of the norm of image motion (Cheung: column 9, lines 5-30), as in the claim.

Regarding claim 21, Cheung discloses detecting the deviation in accordance with the deviation of direction of image motion (Cheung: column 6, lines 30-67), as in the claim.

Regarding claim 22, Cheung discloses detecting a motion vector as motion (Cheung: column 6, lines 1-15), as in the claim.

Regarding claims 23-24, Cheung discloses converting the motion vector to a one-dimensional value (Cheung: column 6, lines 1-12), as in the claims.

Cheung discloses a storage medium for storing a computer controllable program (Cheung: column 3, lines 58-67) for detecting a noise area in an image data generated by decoding encoded data encoded by a frequency transform method and lossy compression method (Cheung: column 4, lines 35-45), the image processing method comprising the steps of:

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detecting motion in an area having a least one pixel in said image (Cheung: column 5, lines 50-67); detecting the deviation of the image motion in the area having at least one pixel (Cheung: column 4, lines 25-35; column 6, lines 25-35); detecting the noise area in accordance with the detecting the noise area in accordance with the deviation of the image motion (Cheung: column 7, lines 8-62), as in claim 25.

Regarding claim 26, Cheung discloses detecting the deviation in accordance with the deviation of the norm of image motion (Cheung: column 9, lines 5-30), as in the claim.

Regarding claim 27, Cheung discloses detecting the deviation in accordance with the deviation of direction of image motion (Cheung: column 6, lines 30-67), as in the claim.

Regarding claim 28, Cheung discloses detecting a motion vector as motion (Cheung: column 6, lines 1-15), as in the claim.

Regarding claims 29-30, Cheung discloses converting the motion vector to a one-dimensional value (Cheung: column 6, lines 1-12), as in the claims.

Regarding claim 31, Cheung discloses reducing the amount of noise detected by said noise reduction means (Cheung: column 5, lines 30-40), as in the claim.

Regarding claim 32, Cheung discloses detecting the deviation in accordance with the deviation of the norm of image motion (Cheung: column 9, lines 5-30), as in the claim.

Regarding claim 33, Cheung discloses detecting the deviation in accordance with the deviation of direction of image motion (Cheung: column 6, lines 30-67), as in the claim.

Regarding claim 34, Cheung discloses detecting a motion vector as motion (Cheung: column 6, lines 1-15), as in the claim.

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Regarding claims 35-36, Cheung discloses converting the motion vector to a one-dimensional value (Cheung: column 6, lines 1-12), as in the claims.

Regarding claim 37, Cheung discloses detecting the deviation in accordance with the deviation of the one-dimensional value (Cheung: column 6, lines 1-12), as in the claim.

Regarding claim 38, Cheung discloses detecting a noise area by comparing the one-dimensional with a predetermined threshold (Cheung: column 6, lines 35-45), as in the claim.

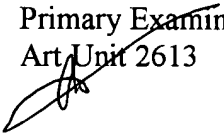
### *Conclusion*

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy S. Rao whose telephone number is (703)-305-4813. The examiner can normally be reached on Monday-Friday 8 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris S. Kelley can be reached on (703)-305-4856. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-305-4700.

Andy S. Rao  
Primary Examiner  
Art Unit 2613



asr  
November 6, 2003